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EXAMINER

SHRADER, LAWRENCE J

ART UNIT	PAPER NUMBER
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2124

DATE MAILED: 10/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/735,434

Applicant(s)

HALLFORD, JASON

Examiner

Lawrence Shrader

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claim 1 is objected to because of the following informalities: The two limitations beginning with "determining whether..." are unclear. A common dictionary meaning of the word "whether" is: *used to introduce alternative possibilities*. There is no expressed alternative or an implied alternative because the phrase needs at least a verb. A verb does exist in other limitations throughout the other claims, having an implied negative alternative. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3 – 5; 7, 9 – 11 are rejected under 35 U.S.C. 103(a) as being anticipated by Endo et al., U.S. Patent 6,617,980 (hereinafter referred to as Endo) in view of Guarneri et al., U.S. Patent 5,724,345 (hereinafter referred to as Guarneri).

In regard to claim 1:

Endo discloses an updating system comprising:

“Determining whether an identifier for dynamically loadable code;” (column 14, line 9)

“Pushing the identifier onto a unidirectional communication link;”

“Determining whether an availability schedule for the dynamically loadable code;”

“Pushing the availability schedule onto the unidirectional communication link;”

“Pushing the dynamically loadable code onto the unidirectional communication link according to the availability schedule.”

Endo discloses a method of (1) determining and pushing (transmitting) identifier (ID) for the loadable data; (2) determining an availability schedule for the loadable data and pushing (transmitting) the schedule; (3) pushing (transmitting) the dynamically loadable data over a unidirectional communication (broadcast) link in accordance with the availability schedule (column 33, line 40 to column 34, line 7). Endo does not explicitly identify a particular type of data to be transmitted, but one skilled in the art would understand that a wide variety of data might be broadcast over a communication link, including loadable code for a software application. Guarneri teaches, for example, the broadcasting of software updates (column 6, lines 41 – 44; see also, e.g., Figure 7). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to push data, the data ID, and a schedule on a unidirectional communication link as taught by Endo, combined with the teaching of Guarneri

wherein the broadcast data includes loadable code (software updates), because voice, data, software code, etc. are easily encoded in a unidirectional broadcast signal for distribution over a large geographical area as taught by Guarneri (column 6, lines 45 – 53).

In regard to claim 3, incorporating the rejection of claim 1:

“...the unidirectional communication link is a selected one of: television data transmission, an MPEG-2 transport stream, and IP-multicast.”

Endo discloses the unidirectional link includes TV broadcasting (column 9, lines 53 – 57).

In regard to claim 4, incorporating the rejection of claim 1:

“receiving data...a set top box, a personal digital assistant, a portable computer, a handheld computer, and a wireless appliance.”

Although the Endo invention does not explicitly describe receiving data with one of a set top box, a personal digital assistant, a portable computer, a handheld computer, and a wireless appliance, it describes the components of a portable computer (e.g., Figure 2). However, Guarneri explicitly teaches the use of a portable computer to receive data over the unidirectional communication link (See Figure 20). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to push loadable code, the code identifier, and a schedule on a unidirectional communication link as taught by Endo combined with the teaching of Guarneri, and to receive the data on a portable computer as taught by Guarneri, because a portable computer is well known to consist of all the components needed to receive transmitted data, process the data, and re-transmit results of the processing.

In regard to claim 5, incorporating the rejection of claim 1:

“Receiving the identifier and the availability schedule over the unidirectional communication link;” Endo discloses receiving the identifier and the availability schedule over the unidirectional communication link (column 33, line 38 to column 34, line 6).

“Retrieving the dynamically loadable code from said communication link according to the availability schedule.” Endo teaches reception of data from a communication link according to the availability schedule (column 33, line 38 to column 34, line 6), but does not explicitly identify a particular type of data to be received on a particular schedule, but one skilled in the art would understand that a wide variety of data might be broadcast over a communication link, including loadable code for an application. Guarneri teaches, for example, the broadcasting and reception of software updates according to a schedule (column 6, lines 41 – 44; see also, e.g., Figure 7). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to receive the data according to a schedule from a unidirectional communication link as taught by Endo, combined with the teaching of Guarneri wherein the received data includes loadable code (software updates), because voice, data, software code, etc. are easily encoded in a unidirectional broadcast signal for distribution over a large geographical area as taught by Guarneri (column 6, lines 45 – 53).

In regard to claim 7 (an apparatus corresponding to the method of claim 1), it is rejected for the same corresponding reasons put forth in the rejection of claim 1.

In regard to claim 9 (an apparatus corresponding to the method of claim 3), incorporating the rejection of claim 7: it is rejected for the same corresponding reasons put forth in the rejection of claim 3.

In regard to claim 10 (an apparatus corresponding to the method of claim 4), incorporating the rejection of claim 7: it is rejected for the same corresponding reasons put forth in the rejection of claim 4.

In regard to claim 11 (an apparatus corresponding to the method of claim 5), incorporating the rejection of claim 7: it is rejected for the same corresponding reasons put forth in the rejection of claim 5.

5. Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being anticipated by Endo et al., U.S. Patent 6,617,980 in view of Guarneri et al., U.S. Patent 5,724,345, as applied to the rejection of claim 1 above, and further in view of Kamimura, U.S. Patent 6,526,455.

In regard to claim 2:

"...the dynamically loadable code comprises a class definition with an object oriented programming language;"

"...the identifier identifies the class definition."

Endo discloses a method of (1) determining and pushing (transmitting) identifier (ID) for the loadable data; (2) determining an availability schedule for the loadable data and pushing (transmitting) the schedule; (3) pushing (transmitting) the dynamically loadable data over a unidirectional communication (broadcast) link in accordance with the availability schedule combined with Guarneri teaching the broadcasting of loadable code (software updates). Neither Endo nor Guarneri teaches loadable code comprising a class definition with an object oriented

language where an identifier identifies the class definition. However, Kamimura teaches the use of object-oriented code with a class identifier corresponding to an object class definition (column 4, lines 41 – 44). If the information broadcast as taught by the combination of Endo and Guarneri includes software code, then one skilled in the art would expect object-oriented software to be included. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to push loadable code, the code identifier, and a schedule on a unidirectional communication link as taught by Endo combined with the teaching of Guarneri, and further combined with Kamimura's teaching wherein the loadable code being broadcast is object-oriented code having an ID corresponding to the class definition, because the downloaded class definition ID allows the user to identify the proper object class to be downloaded for use in the application program.

In regard to claim 8 (an apparatus corresponding to the method of claim 2), incorporating the rejection of claim 7: it is rejected for the same corresponding reasons put forth in the rejection of claim 2.

6. Claims 6; 12; 26; 40; and 51 are rejected under 35 U.S.C. 103(a) as being anticipated by Endo et al., U.S. Patent 6,617,980 in view of Guarneri et al., U.S. Patent 5,724,345, and further in view of Nakajima, U.S. Patent 6,289,510.

In regard to claim 6, incorporating the rejection of claim 5:

“Determining whether the dynamically loadable code is required for executing an application program;”

“Performing said retrieving responsive to said determining.”

Niether Endo nor Guarneri discloses that a determination is made about whether or not the loadable code is required for executing the application, and then performing the retrieval responsive to the determination. However, Nakajima discloses a method of determining whether or not the loadable code is required for executing the application, and then performing the retrieval responsive to the determination (column 14, lines 24 - 41). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to push loadable code, the code identifier, and a schedule on a unidirectional communication link as taught by Endo combined with the teaching of Guarneri, and further combine the teaching of Nakajima so that a determination might be made about whether or not the code is required for the execution of the application before downloading it, and then downloading it if it is needed, because if the code is not required then the system operation will not be interrupted by the needless downloading and updating of the application (see Nakajima Abstract).

In regard to claim 12 (an apparatus corresponding to the method of claim 6), incorporating the rejection of claim 11: it is rejected for the same corresponding reasons put forth in the rejection of claim 6.

In regard to claim 26, incorporating the rejection of claim 24:

“Determining whether an application program requires dynamically loadable code;”

“Determining whether the manifest includes an identifier corresponding to said dynamically loadable code.”

Niether Endo nor Guarneri discloses that a determination is made about whether or not the loadable code is required for executing the application, and determining if the manifest includes the identifier. However, Nakajima discloses a method of determining whether or not the loadable code is required for executing the application, and then performing the retrieval responsive to the determination (column 14, lines 24 - 41). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to receive loadable code, the code identifier, and a schedule on a unidirectional communication link as taught by Endo combined with the teaching of Guarneri, and further combine the teaching of Nakajima so that a determination might be made about whether or not the code is required for the execution of the application before downloading it, and then downloading it if it is needed, because if the code is not required then the system operation will not be interrupted by the needless downloading and updating of the application (see Nakajima Abstract).

In regard to claim 40 (an apparatus corresponding to the method of claim 26), incorporating the rejection of claim 39: it is rejected for the same corresponding reasons put forth in the rejection of claim 26.

In regard to claim 51 (a system corresponding to the method of claim 26), incorporating the rejection of claim 50: it is rejected for the same corresponding reasons put forth in the rejection of claim 26.

7. Claims 13 – 18; 20; 24, 25, 30; 31 – 33; 35; 39; 44 – 46; 47; and 50 are rejected under 35 U.S.C. 103(a) as being anticipated by Endo et al., U.S. Patent 6,617,980 in view of Guarneri et al., U.S. Patent 5,724,345, and further in view of Becker, U.S. Patent 5,937,411.

In regard to claim 13:

“Preparing a manifest for dynamically loadable code...”

“Pushing the manifest onto a unidirectional communication link;”

“Pushing the dynamically loadable code onto said communication link according to the availability schedule.”

Endo discloses a method of (1) determining and pushing (transmitting) identifier (ID) for the loadable data; (2) determining an availability schedule for the loadable data and pushing (transmitting) the schedule; (3) pushing (transmitting) the dynamically loadable data over a unidirectional communication (broadcast) link in accordance with the availability schedule (column 33, line 40 to column 34, line 7). Endo does not explicitly identify a particular type of data to be transmitted, but Guarneri teaches broadcasting of loadable code as software updates (column 6, lines 41 – 44; see also, e.g., Figure 7). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to push data, the data ID, and a schedule on a unidirectional communication link as taught by Endo, combined with the teaching of Guarneri wherein the broadcast data includes loadable code (software updates), because voice, data,

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software code, etc. are easily encoded in a unidirectional broadcast signal for distribution over a large geographical area as taught by Guarneri (column 6, lines 45 – 53).

Neither Endo nor Guarneri teaches a preparation of a manifest file. However, Becker teaches a manifest file containing dynamically loadable code (column 2, lines 25; e.g., Figures 1 and 2). The manifest file contains information about other files, which could include, in addition to identification information, schedule availability among other things. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to prepare a manifest including the data ID and a schedule availability, and push the manifest and the loadable code onto a unidirectional communication link as taught by Endo, combined with the teaching of Guarneri wherein the broadcast data includes loadable code (software updates), and further combined with the teaching of Becker. The latter combination is suggested because manifest files include pertinent information about the code being downloaded - object-oriented classes for example in the Becker invention (see Figures 1 and 2).

In regard to claim 14, incorporating the rejection of claim 13:

“...the dynamically loadable code comprises a class definition with an object oriented programming language;”

“...the identifier identifies the class definition.”

Endo discloses a method of (1) determining and pushing (transmitting) identifier (ID) for the loadable data; (2) determining an availability schedule for the loadable data and pushing (transmitting) the schedule; (3) pushing (transmitting) the dynamically loadable data over a unidirectional communication (broadcast) link in accordance with the availability schedule combined with Guarneri teaching the broadcasting of loadable code (software updates). Neither

Endo nor Guarneri teaches loadable code comprising a class definition with an object oriented language where an identifier identifies the class definition. However, Becker teaches the use of object-oriented code composed with class identifiers in the manifest file. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to prepare a manifest including the data ID and a schedule availability, and push the manifest and the loadable code onto a unidirectional communication link as taught by Endo combined with the teaching of Guarneri, and further combined with Becker's teaching wherein the loadable code is object-oriented code with class identifiers in the manifest file providing the user a means to identify the proper object class information as taught by Becker (column 2, lines 17 – 18).

In regard to claim 15, incorporating the rejection of claim 13:

"..the dynamically loaded code is written in a selected one of: Java, Objective-C, C++, SmallTalk, Modula-3, Component Object Model, and an object-oriented scripting language."

Neither Endo nor Guarneri teaches the loadable code written in a specific language. However, Becker specifically discloses Java code used in the meta-file containing the manifest file (column 2, lines 8 – 25). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to prepare a manifest including the data ID and a schedule availability, and push the manifest and the loadable code onto a unidirectional communication link as taught by Endo combined with the teaching of Guarneri, and further combined with Becker's teaching wherein the code is Java code, because Java, having robust portability, is well suited for network and communications computing as taught by Becker (column 1, lines 12 – 20).

In regard to claim 16, incorporating the rejection of claim 13:

“...the unidirectional communication link is a selected one of: television data transmission, an MPEG-2 transport stream, and IP-multicast.”

Endo discloses the unidirectional link includes TV broadcasting (column 9, lines 53 – 57).

In regard to claim 17, incorporating the rejection of claim 13:

“receiving data...a set top box, a personal digital assistant, a portable computer, a handheld computer, and a wireless appliance.”

Although the Endo invention does not explicitly describe receiving data with one of a set top box, a personal digital assistant, a portable computer, a handheld computer, and a wireless appliance, it describes the components of a portable computer. However, Guarneri explicitly teaches the use of a portable computer to receive data over the unidirectional communication link (See Figure 20). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to prepare a manifest including the data ID and a schedule availability, and push the manifest and the loadable code onto a unidirectional communication link as taught by Endo combined with the teachings of Guarneri and Becker, and to receive the data on a portable computer as taught by Guarneri, because a portable computer is well known to consist of all the components needed to receive transmitted data, process the data, and re-transmit results of the processing.

In regard to claim 18, incorporating the rejection of claim 13:

“receiving the manifest over said communication link;”

“recording the identifier and the availability schedule;”

“retrieving the dynamically loadable code when it is pushed...”

Endo in combination with Guarneri and Becker discloses the receiving of a manifest file and the loadable code over the communication link as disclosed in claim 13. Official notice is taken that in order to use the identifier and availability schedule, it would be obvious that some means to record or store this information either in a variable, a file, etc. must be inherent in the system. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to prepare a manifest including the data ID and a schedule availability, and push the manifest and the loadable code onto a unidirectional communication link as taught by Endo, combined with the teachings of Guarneri and Becker, and further combined with well known knowledge that data must be stored or recorded in the system, because without storing the data the execution cannot proceed.

In regard to claim 20:

“Preparing a manifest for a Java-type archive file...”

“Pushing the manifest onto a unidirectional communication link;”

“Pushing the said objects of the Java-type archive file onto the unidirectional communication link according to the availability schedule.”

Endo discloses a method of (1) determining and pushing (transmitting) identifier (ID) for the loadable data; (2) determining an availability schedule for the loadable data and pushing (transmitting) the schedule; (3) pushing (transmitting) the dynamically loadable data over a unidirectional communication (broadcast) link in accordance with the availability schedule (column 32, line 60 to column 33, line 3). Endo does not explicitly identify a particular type of data to be transmitted, but Guarneri teaches broadcasting of loadable code as software updates

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(column 6, lines 41 – 44; see also, e.g., Figure 7). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to push data, the data ID, and a schedule on a unidirectional communication link as taught by Endo, combined with the teaching of Guarneri wherein the broadcast data includes loadable code (software updates), because voice, data, software code, etc. are easily encoded in a unidirectional broadcast signal for distribution over a large geographical area as taught by Guarneri (column 6, lines 45 – 53).

Neither Endo nor Guarneri teaches a preparation of a manifest for a Java-type archive file. However, Becker teaches preparing a manifest for a Java-type manifest containing object identifiers (column 2, lines 25; e.g., Figures 1 and 2). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to prepare a manifest including the data ID and a schedule availability, and push the manifest and the loadable code onto a unidirectional communication link as taught by Endo, combined with the teaching of Guarneri wherein the broadcast data includes loadable code (software updates), and further combined with the teaching of Becker. The latter combination is suggested because manifest files include pertinent information about the objects being downloaded in the Becker invention (see Figures 1 and 2).

In regard to claim 24:

“receiving, over the push-only network, a manifest...”

“receiving, over the push-only network, the dynamically loadable code...”

Endo discloses a method of receiving data over a push-only network comprising an identifier, an availability schedule, and information, but does not explicitly identify a particular type of data to be transmitted (column 32, line 60 – column 33, line 2). However, Guarneri

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teaches reception of loadable code as software updates over a push-only network (column 6, lines 41 – 44; see also, e.g., Figure 7). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to receive data, the data ID, and a schedule on a push-only network as taught by Endo, combined with the teaching of Guarneri wherein the broadcast data includes loadable code (software updates), because voice, data, software code, etc. are easily encoded in a unidirectional broadcast signal for distribution over a large geographical area as taught by Guarneri (column 6, lines 45 – 53).

Neither Endo nor Guarneri teaches a preparation of a manifest file. However, Becker teaches a manifest file containing dynamically loadable code (column 2, lines 25; e.g., Figures 1 and 2). The manifest file contains information about other files, which could include identification information, schedule availability, or other meta-data transmitted in the data of the combined Endo and Guarneri inventions. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to receive a manifest file including the data ID and a schedule availability, and receive the manifest and the loadable code from a push-only network as taught by Endo, combined with the teaching of Guarneri wherein the broadcast data includes loadable code (software updates), and further combined with the teaching of Becker. The latter combination is suggested because manifest files include pertinent information about the code being downloaded - object-oriented classes for example in the Becker invention (see Figures 1 and 2).

In regard to claim 25, incorporating the rejection of claim 24:

Neither Endo nor Guarneri teaches the “...*dynamically loadable code comprises a selected one of: a single object oriented object, a plurality of object oriented definitions, and a*

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Dynamic Link Library.” However, Becker discloses a single object oriented object, a plurality of object oriented definitions (see Figures 1 and 2). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to receive data, the data ID, and a schedule on push-only network as taught by Endo, combined with the teaching of Guarneri wherein the broadcast data includes loadable code (software updates), further combined with teaching of Becker wherein the data comprises a single object oriented, which simplifying programming memory management as taught by Becker (column 1, lines 35 – 38).

In regard to claim 30, incorporating the rejection of claim 24:

“Adding said received dynamically loadable code to a local storage for dynamically loadable code.” Official notice it taken that one skilled in the art would be aware of well known procedure of storing code to a local storage designated for the type of code received. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to receive data, the data ID, and a schedule on a push-only network link as taught by Endo, combined with the teaching of Guarneri wherein the broadcast data includes loadable code (software updates), because voice, data, software code, etc. are easily encoded in a unidirectional broadcast signal for distribution over a large geographical area as taught by Guarneri (column 6, lines 45 – 53), and further combined with the well known knowledge that code is stored in a local storage so that it can be executed locally.

In regard to claim 31 (an apparatus corresponding to the method of claim 13): it is rejected for the same corresponding reasons put forth in the rejection of claim 13.

In regard to claim 32 (an apparatus corresponding to the method of claim 17), incorporating the rejection of claim 31: it is rejected for the same corresponding reasons put forth in the rejection of claim 17.

In regard to claim 33 (an apparatus corresponding to the method of claim 18), incorporating the rejection of claim 31: it is rejected for the same corresponding reasons put forth in the rejection of claim 18.

In regard to claim 35 (an apparatus corresponding to the method of claim 20): it is rejected for the same corresponding reasons put forth in the rejection of claim 20.

In regard to claim 39 (an apparatus corresponding to the method of claim 24): it is rejected for the same corresponding reasons put forth in the rejection of claim 24.

In regard to claim 44 (a system corresponding to the method of claim 13): it is rejected for the same corresponding reasons put forth in the rejection of claim 13.

In regard to claim 45 (a system corresponding to the method of claim 17), incorporating the rejection of claim 44: it is rejected for the same corresponding reasons put forth in the rejection of claim 17.

In regard to claim 46 (an apparatus corresponding to the method of claim 18), incorporating the rejection of claim 44: it is rejected for the same corresponding reasons put forth in the rejection of claim 18.

In regard to claim 47 (a system corresponding to the method of claim 20): it is rejected for the same corresponding reasons put forth in the rejection of claim 20.

In regard to claim 50 (a system corresponding to the method of claim 24): it is rejected for the same corresponding reasons put forth in the rejection of claim 24.

8. Claims 19; 21, 22; 34; 36, 37; 48 are rejected under 35 U.S.C. 103(a) as being anticipated by Endo et al., U.S. Patent 6,617,980 in view of Guarneri et al., U.S. Patent 5,724,345, and further in view of Becker, U.S. Patent 5,937,411, and further in view of Nakajima, U.S. Patent 6,289,510.

In regard to claim 19, incorporating the rejection of claim 14:

“Determining whether the dynamically loadable code is required for executing an application program;”

“Performing said retrieving responsive to said determining.”

Niether Endo nor Guarneri discloses that a determination is made about whether or not the loadable code is required for executing the application, and then performing the retrieval responsive to the determination. However, Nakajima discloses a method of determining whether or not the loadable code is required for executing the application, and then performing the retrieval responsive to the determination (column 14, lines 24 - 41). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to push loadable code,

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the code identifier, and a schedule on a unidirectional communication link as taught by Endo combined with the teaching of Guarneri, and further combine the teaching of Nakajima so that a determination might be made about whether or not the code is required for the execution of the application before downloading it, and then downloading it if it is needed, because if the code is not required then the system operation will not be interrupted by the needless downloading and updating of the application.

In regard to claim 21, incorporating the rejection of claim 20:

“executing programming code;”

“determining whether an unavailable object is required for said executing;”

“determining whether the manifest includes an identifier corresponding to the object;”

“receiving said required object over the unidirectional communication link.”

Niether Endo nor Guarneri nor Becker discloses that a determination is made about whether or not an unavailable object is required for executing the application, and then performing the retrieval responsive to the determination of an identifier. However, Nakajima discloses a method of executing programmable code and then determining whether or not unavailable code is required for executing the application, and then performing the retrieval responsive to the determination (column 14, lines 24 - 41).). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to prepare a manifest including the data ID and a schedule availability, and push the manifest and the loadable code onto a unidirectional communication link as taught by Endo, combined with the teachings of Guarneri and Becker, and further combined with the teaching of Nakajima so that a

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determination might be made about whether or not the code is required for the execution of the application before downloading it, determining if the identifier is contained in the manifest disclosed by Becker, and then downloading it if it is needed. This combination is suggested by the fact that the manifest contains meta-data so that the developer might make determinations about the objects contained in the archive file without downloading all the code and thereby reducing download times as taught by Becker (column 2, lines 11 – 20).

In regard to claim 22, incorporating the rejection of claim 21:

“storing said received object in a temporary memory location disposed within a device;”

“wherein resetting the device causes said received object to be discarded.”

Endo in combination with Guarneri, Becker, and Nakajima discloses the receiving of a manifest file and the loadable code over the communication link as disclosed in claim 21.

Official notice is taken that in order to execute a received object, it would be obvious that it must be stored in memory, which would be cleared when the device is reset. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to prepare a manifest including the data ID and a schedule availability, and push the manifest and the loadable code onto a unidirectional communication link as taught by Endo, combined with the teachings of Guarneri and Becker, and combined with well known knowledge that an object must be stored in execution memory (which will cause the object to be discarded upon reset) because without storing in memory execution cannot proceed.

In regard to claim 34 (an apparatus corresponding to the method of claim 19), incorporating the rejection of claim 31: it is rejected for the same corresponding reasons put forth in the rejection of claim 19.

In regard to claim 36 (an apparatus corresponding to the method of claim 21), incorporating the rejection of claim 35: it is rejected for the same corresponding reasons put forth in the rejection of claim 21.

In regard to claim 37 (an apparatus corresponding to the method of claim 22), incorporating the rejection of claim 36: it is rejected for the same corresponding reasons put forth in the rejection of claim 22.

In regard to claim 48 (a system corresponding to the method of claim 21), incorporating the rejection of claim 47: it is rejected for the same corresponding reasons put forth in the rejection of claim 21.

9. Claims 23; 38; and 49 are rejected under 35 U.S.C. 103(a) as being anticipated by Endo et al., U.S. Patent 6,617,980 in view of Guarneri et al., U.S. Patent 5,724,345, and further in view of Becker, U.S. Patent 5,937,411, as applied to the rejection of claim 20 above, and further in view of Nakajima, U.S. Patent 6,289,510, and further in view of Lounsberry et al., U.S. Patent 6,574,518 (hereinafter referred to as Lounsberry).

In regard to claim 23:

“identifying an unavailable object...”

“determining whether the manifest includes an identifier corresponding to the object;”

“receiving said required object...”

“purchasing said required object...”

Niether Endo nor Guarneri nor Becker discloses that a determination is made about whether or not an unavailable object is required for executing the application, and then performing the retrieval responsive to the determination of an identifier. However, Nakajima discloses a method of executing programmable code and then determining whether or not unavailable code is required for executing the application, and then performing the retrieval responsive to the determination (column 14, lines 24 - 41).). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to prepare a manifest including the data ID and a schedule availability, and receive the manifest and the loadable code onto a unidirectional communication link as taught by Endo combined with the teachings of Guarneri and Becker, and further combined with the teaching of Nakajima so that a determination might be made about whether or not the code is required for the execution of the application before downloading it, determining if the identifier is contained in the manifest disclosed by Becker, and then downloading it if it is needed. This combination is suggested by the fact that the manifest contains meta-data so that the developer might make determinations about the objects contained in the archive file without downloading all the code and thereby reducing download times as taught by Becker (column 2, lines 11 - 20).

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Niether Endo nor Guarneri nor Becker nor Nakajima discloses purchasing of software. However, Lounsberry discloses purchasing downloadable software. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to prepare a manifest including the data ID and a schedule availability, and receive the manifest and the loadable code onto a unidirectional communication link as taught by Endo combined with the teachings of Guarneri and Becker, further combined with the teaching of Nakajima so that a determination might be made about whether or not the code is required for the execution of the application before downloading it, determining if the identifier is contained in the manifest disclosed by Becker, and then downloading it if it is needed, and further combined with Lounsberry, because if the object must be purchased it is logical to provide a procedure allowing the purchase.

In regard to claim 38 (an apparatus corresponding to the method of claim 23), incorporating the rejection of claim 35: it is rejected for the same corresponding reasons put forth in the rejection of claim 23.

In regard to claim 49 (a system corresponding to the method of claim 23), incorporating the rejection of claim 47: it is rejected for the same corresponding reasons put forth in the rejection of claim 23.

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10. Claims 27, 28; 41, 42; and 52 are rejected under 35 U.S.C. 103(a) as being anticipated by Endo et al., U.S. Patent 6,617,980 in view of Guarneri et al., U.S. Patent 5,724,345, further in view of Nakajima, U.S. Patent 6,289,510, and further in view of Spyker et al., U.S. Patent 6,571,389 (hereinafter referred to as Spyker).

In regard to claim 27, incorporating the rejection of claim 26:

Neither Endo nor Guarneri nor Nakajima discloses *“inspecting a CLASSPATH environment for a class...”* to determine *“whether said required dynamically loadable code is unavailable.”* However, Spyker discloses a JAVA environment where CLASSPATHS must be inspected to determine if the code is unavailable (column 3, lines 35 – 55). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to receive loadable code, the code identifier, and a schedule on a unidirectional communication link as taught by Endo combined with the teaching of Guarneri, and further combine the teaching of Nakajima so that a determination might be made about whether or not the code is required for the execution of the application before downloading it, and then downloading it if it is needed, further combined with Spyker to inspect a CLASSPATH. The latter combination is motivated by the use of object-oriented code as taught by Becker wherein a CLASSPATH search would be a common well known procedure to check for code availability.

In regard to claim 28, incorporating the rejection of claim 27:

Neither Endo nor Guarneri nor Nakajima discloses *“adding said received dynamically loadable code to the CLASSPATH environment.”* However, Spyker discloses a JAVA environment where appending information to the CLASSPATHS (column 14, lines 42 to column 15, line 1055). Therefore, it would have been obvious to one skilled in the art at the time the

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invention was made to receive loadable code, the code identifier, and a schedule on a unidirectional communication link as taught by Endo combined with the teaching of Guarneri, and further combine the teaching of Nakajima so that a determination might be made about whether or not the code is required for the execution of the application before downloading it, and then downloading it if it is needed, further combined with Spyker to append code to a CLASSPATH. The latter combination is motivated by the use of object-oriented code as taught by Becker wherein appending code to a CLASSPATH be a common well-known procedure.

In regard to claim 41 (an apparatus corresponding to the method of claim 27), incorporating the rejection of claim 40: it is rejected for the same corresponding reasons put forth in the rejection of claim 27.

In regard to claim 42 (an apparatus corresponding to the method of claim 28), incorporating the rejection of claim 40: it is rejected for the same corresponding reasons put forth in the rejection of claim 28.

In regard to claim 52 (a system corresponding to the method of claims 27 and 28 combined), incorporating the rejection of claim 50: it is rejected for the same reasons put forth in the rejection of claims 27 and 28 combined.

11. Claims 29 and 43 are rejected under 35 U.S.C. 103(a) as being anticipated by Endo et al., U.S. Patent 6,617,980 in view of Guarneri et al., U.S. Patent 5,724,345, as applied in the rejection of claim 24, further in view of Spyker et al., U.S. Patent 6,571,389.

In regard to claim 29:

Neither Endo nor Guarneri discloses “*inspecting a CLASSPATH environment for a class...*” to determine “*whether said required dynamically loadable code is unavailable.*” However, Spyker discloses a JAVA environment where CLASSPATHS must be inspected to determine if the code is unavailable (column 3, lines 35 – 55). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to receive loadable code, the code identifier, and a schedule on a unidirectional communication link as taught by Endo combined with the teaching of Guarneri, and further combine the teaching of Nakajima so that a determination might be made about whether or not the code is required for the execution of the application before downloading it, and then downloading it if it is needed, further combined with Spyker to inspect a CLASSPATH. The latter combination is motivated by the use of object-oriented code as taught by Becker wherein a CLASSPATH search would be a common well known procedure to check for code availability.

In regard to claim 43 (an apparatus corresponding to the method of claim 29), incorporating the rejection of claim 39: it is rejected for the same corresponding reasons put forth in the rejection of claim 29.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. Patent 6,467,089 to Aust et al., regarding scheduling program downloads.

U.S. Patent 6,480,783 to Myr, regarding IP-multicasting on a unidirectional communication link.

U.S. Patent 6,480,783 to Tsou et al., regarding scheduled software downloads with code identifiers.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Shrader whose telephone number is (703) 305-8046. The examiner can normally be reached on M-F 08:00-16:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703) 305-9662. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Lawrence Shrader
Examiner
Art Unit 2124

September 22, 2003



JOHN CHAVIS
PATENT EXAMINER
ART UNIT 2124